Remarks

Upon entry of the amendments, claims 1, 15-20, 26-27, 31-50, 53-56, 63 and 68-83 will be pending. Claims 19-20, 39-50, 54-56, 76, and 79-80 have been withdrawn by the Examiner as directed to non-elected subject matter. Claims 10-13 have been canceled herein without prejudice or disclaimer.

Claims 1, 34, and 53 have been amended herein to more particularly point out and distinctly claim Applicants' invention. Support for new claims 81-83 can be found throughout the specification and claims as-filed. Thus, no new matter is presented in these amendments.

Applicants acknowledge with appreciation that the Examiner has found SEQ ID NOS: 25-29 free of prior art and, therefore, allowable subject matter. *See* Office Action at page 2.

Elections/Restrictions

Claims 19-20, 39-50, 54-56, 76, and 79-80 are deemed withdrawn by the Examiner as drawn to non-elected inventions. *See*, Office Action at page 2. Applicants request that these withdrawn process claims, which as presented herein depend (directly or indirectly) from and necessarily include all the limitations of elected product claim 1, be rejoined in accordance with the provisions of MPEP § 821.04.

Indefiniteness

The Examiner rejects claim 34 under 35 U.S.C. § 112, ¶ 2 as indefinite for reciting a trademark or trade name for the non-ionic detergent poloxamer. *See* Office Action at page 3. According to the Examiner, this claim is indefinite because the trademark or trade name is used to identify a source of the goods and not the goods themselves. Applicants traverse.

Claim 34 has been amended herein to recite "polyoxyethylene-polyoxypropylene Block Copolymer" in place of "Pluronic® F-68." Applicants assert that one of skill in the art at the time of invention would understand that these terms are both suitable designations for the non-ionic detergent recited in the claim. Accordingly, because claim 34 no longer identifies the non-ionic detergent by its trademark or trade name, this rejection should be withdrawn.

Obviousness

The Examiner rejects claims 1, 10-13, 15-18, 26-27, 31-38, 53, 68-75, and 77-78 under 35 U.S.C. § 103(a) as obvious in view of EP 1 136 557 ("Schilfgaarde") in view of Juliano et al. (2000), Current Opinion in Molecular Therapeutics, 2:297-303 ("Juliano") in view of Lindgren et al., (2000), TiPS, 21:99-103 ("Lindgren"), and further in view of U.S. Patent No. 5,286,637 ("Veronese"). According to the Examiner, it would have been obvious to one of ordinary skill in the art to combine the teachings of Schilfgaarde, Lindgren, Juliano, and Veronese to design a module of penetrating peptides conjugated to an effector molecule for transporting biologically active molecules across membranes. *See* Office Action at page 6. Applicants traverse as the rejection is applied to the claims as amended herein.

Claim 1, from which all remaining claims directly or indirectly depend, has been amended herein to recite a penetrating module comprising a penetrating peptide and an effector that is coupled or fused to the penetrating peptide which consists of at least one amino acid sequence selected from the group consisting of SEQ ID NOS: 1-15, 24-29, or at least 12 contiguous amino acids of any peptides of SEQ ID NOS: 1-15 and 24-29, such that the penetrating peptide is capable of translocating across a biological barrier.

Schilfgaarde does not teach or suggest a penetrating peptide consisting of SEQ ID NO: 1 that is useful for translocating a biologically active effector molecule across a biological barrier. Rather, Schilfgaarde teaches a full-length *Haemophilus influenzae* amino acid sequence (SEQ ID NO:4) which comprises SEQ ID NO: 1 of the instant application. According to Schilfgaarde, this full-length sequence is involved in paracytosis through epithelial cell layers. Because Schilfgaarde does not specifically identify the portion of SEQ ID NO: 4 that is responsible for the penetration function of the amino acid, Applicants submit that Schilfgaarde does not teach or suggest a penetrating peptide consisting of the sequence of SEQ ID NO: 1 of the instant invention. Furthermore, Schilfgaarde also does not teach or suggest any of the other penetrating peptides of SEQ ID NOS: 2-15 and 24-29.

Moreover, the combination of Juliano, Lindgren, and/or Veronese does not cure the deficiencies in the teachings of Schilfgaarde. Although Juliano and Lindgren teach or suggest the use of cell penetrating peptides conjugated to biologically active peptides or proteins, and Veronese teaches pegylation of biologically active peptides or proteins for advantageous

pharmacokinetics, none of these references specifically identify amino acid sequences consisting of SEQ ID NOS: 1-15 and 24-29 for use as the penetrating peptide that is conjugated to the biologically active effector molecule. In fact, as acknowledged by the Examiner, the penetrating peptides of SEQ ID NOS: 25-29 are free of the prior art. *See* Office Action at p. 2.

Accordingly, even if these references were combined by one of ordinary skill in the art at the time of invention, their combined teachings do not teach or suggest all of the limitations of the claims as amended herein. Thus, Applicants contend that the claims as amended are nonobvious in view of the cited references. Therefore, this rejection should be withdrawn.

Conclusion

On the basis of the foregoing amendments and remarks, Applicants respectfully submit that the pending claims are in condition for allowance. Should any questions or issues arise concerning this application, the Examiner is encouraged to contact the undersigned at the telephone number provided below.

With no extension of time this response is due on or before May 7, 2006. The Commissioner is hereby authorized to charge any fees that may be due, or credit any overpayment of same, to Deposit Account No. 50-0311, Reference No. 24348-501 NATL.

Respectfully submitted,

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